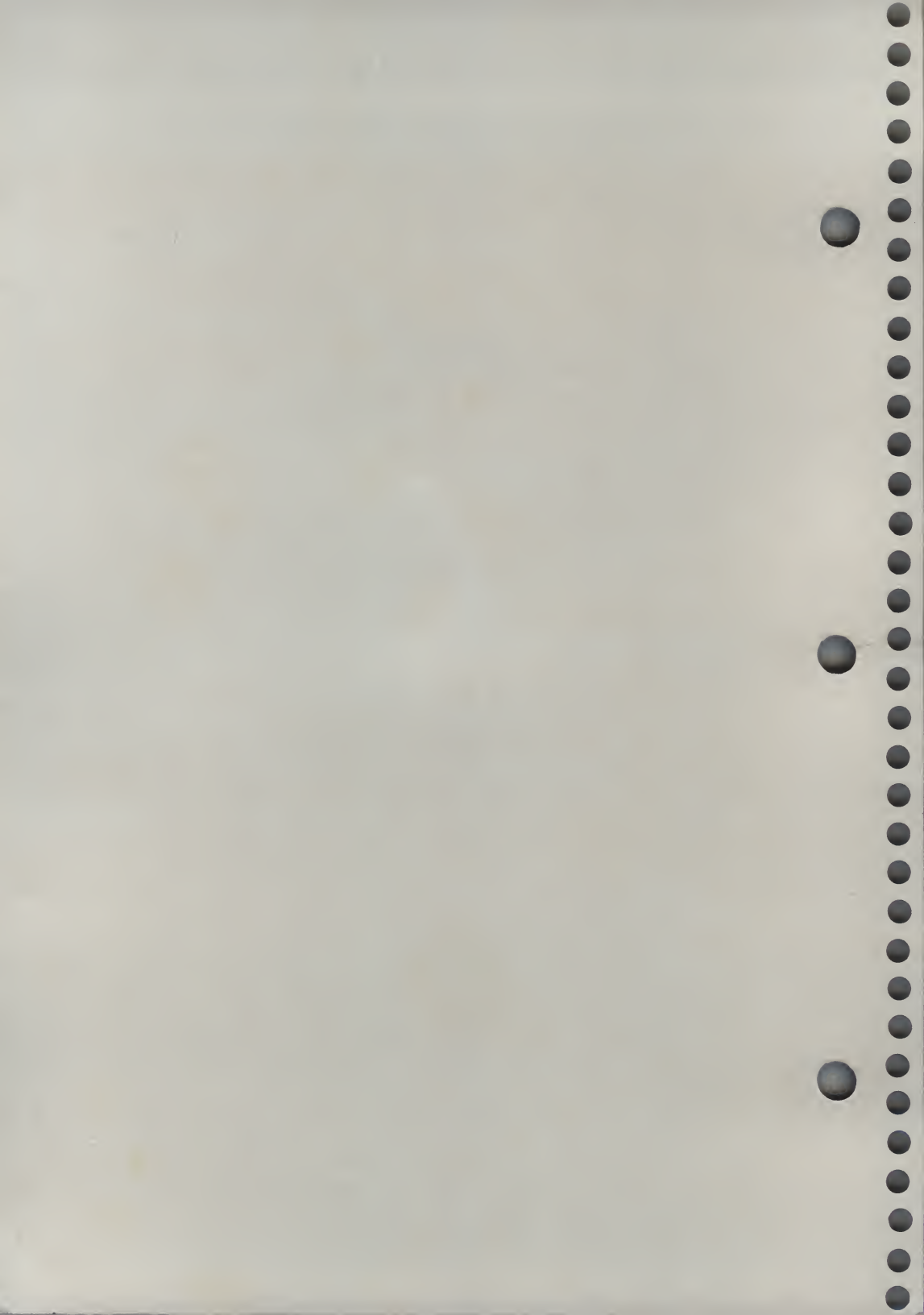


*Thoroughbred/OS<sup>TM</sup>  
Installation Guide  
Supplement*



***Thoroughbred/OS  
Installation Guide  
Supplement***

## **Thoroughbred/OS Installation Guide Supplement**

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## 1. INTRODUCTION

---

This supplement is for Thoroughbred/OS Version 6.6.2 and later versions.

This supplement to the "Thoroughbred/OS Installation Guide" provides additional installation steps and common procedures that you may use after Thoroughbred/OS (TOS) has been installed on your system.

For more information on the utilities presented in this guide, refer to the TOS Reference Manual. The following conventions are used in this guide:

- < Return > - Represents a Carriage Return or Enter key.
- < F1 > - Represents Function Key 1, used for YES ("Y") responses.
- < F2 > - Represents Function Key 2, used for NO ("N") responses.
- < F3 > - Represents Function Key 3, used to return to a previous question.
- < F4 > - Represents Function Key 4, used to END a function and return to the previous menu.

**NOTE:** Depending upon your version of Thoroughbred/OS, some screens and prompts may appear different from those represented in this supplement.





## 2. TOS SERIAL PORT NUMBERS

---

The following tables provide the TOS serial port numbers based on the physical port on the computer or Expansion Board Remote Panel. In the following tables, "P1" through "P8" represent ports on the Remote Panel. TOS serial ports are numbered 1 through 9 and A through W.

To determine the correct address for the boards in your system, please refer to

- Table A - TOS Version 6.7.
- Table B - TOS Version 6.6.2.

To determine the correct serial port numbers for your boards, please refer to

- Table C - For IBM PC's and compatible systems
- Table D - For PS/2 systems.

TOS 16-User TURBO, 24-User TURBO, and 32-User TURBO systems include an extra port (17th, 25th, or 33rd port) that can be used for a serial device that is not a terminal (e.g., serial printer or modem).

The TOS Expansion Board Remote Panel ports can operate at baud rates from 50 to 19200.

TOS 6.7 Expansion Board Addresses  
IBM - PC

	AT				TS-386				Compaq 386			
	COM1	COM2	COM3	COM4	COM1	COM2	COM3	COM4	COM1	COM2	COM3	COM4
1-User <sup>†</sup>	A				A				A			
3-User	A	A			A	A			A	A		
5-User	A	E			A	E			A	E		
10-User	A	E			A	E			A	E		
10 TURBO	A	E			A	E			A	E		
16 TURBO	E	E			E	E			E	E		
24 TURBO	E	E	E		E	E	E		E	E	E	
32 TURBO	E	E	E	E	E	E	E	E	E	E	E	E

E - TOS Expansion Board Address  
A - IBM Async Adapter Address

<sup>†</sup> - may be addressed as COM2

Table A

TOS 6.6.2 Expansion Board Addresses  
IBM - PC

	AT				TS-386				Compaq 386			
	COM1	COM2	COM3	COM4	COM1	COM2	COM3	COM4	COM1	COM2	COM3	COM4
1-User <sup>†</sup>	A				A				A			
3-User	A	A			A	A			A	A		
6-User	A	E			A	E			E	A		
18-User	A	E			A	E			E	A		
18 TURBO	E	A			A	E			E	A		
16 TURBO	E	E			E	E			E	E		
24 TURBO	E	E	E		E	E	E		E	E	E	
32 TURBO	E	E	E	E	E	E	E	E	E	E	E	E

E- TOS Expansion Board Address  
A- IBM Async Adapter Address

<sup>†</sup>- may be addressed as COM2

Table B

TOS Serial Port Numbers - IBM PC

IBM Ports	CON	COM1	COM2	COM3	COM4
TOS Ports					
3-User	0	1	2		
6/10-User, 10-TURBO (1 Board)	0	1	P1 P2 P3 P4 P5 P6 P7 P8 2 3 4 5 6 7 8 9		
6/10-User, 10-TURBO (1 Board)	0	P1 P2 P3 P4 P5 P6 P7 P8 1 2 3 4 5 6 7 8	9		
16-TURBO (2 Boards)	0	P1 P2 P3 P4 P5 P6 P7 P8 1 2 3 4 5 6 7 8	P1 P2 P3 P4 P5 P6 P7 P8 9 A B C D E F G		
24-TURBO (3 Boards)	0	P1 P2 P3 P4 P5 P6 P7 P8 1 2 3 4 5 6 7 8	P1 P2 P3 P4 P5 P6 P7 P8 9 A B C D E F G	P1 P2 P3 P4 P5 P6 P7 P8 H I J K L M N O	
32-TURBO (4 Boards)	0	P1 P2 P3 P4 P5 P6 P7 P8 1 2 3 4 5 6 7 8	P1 P2 P3 P4 P5 P6 P7 P8 9 A B C D E F G	P1 P2 P3 P4 P5 P6 P7 P8 H I J K L M N O	P1 P2 P3 P4 P5 P6 P7 P8 P Q R S T U V W

Table C

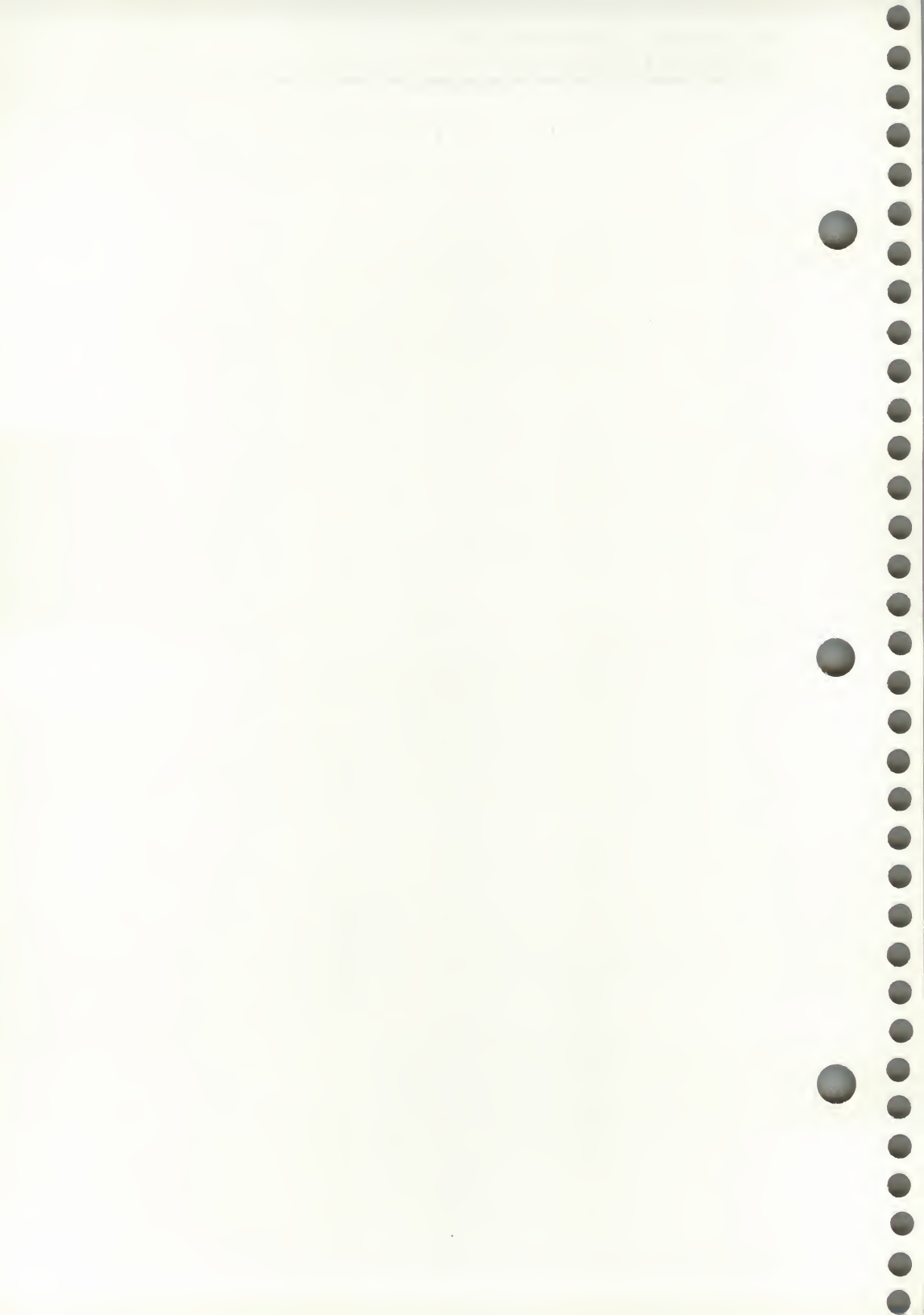
TOS Serial Port Numbers - PS/2

IBM Ports	CON	COM1	COM2	COM3	COM4
TOS Ports					
3-User	0	1	2		
8-User	0	1	2	3	4
10-User (1 Board)	0	1	P1 P2 P3 P4 P5 P6 P7 P8 2 3 4 5 6 7 8 9		

IBM Ports	COM5	COM6	COM7
TOS Ports			
3-User			
8-User	5	6	7
10-User (1 Board)			

Table D





### 3. ADDING TERMINALS

---

#### PROCEDURE

##### 1. CONNECT YOUR TERMINAL

Connect the terminal to the serial port on the computer, or to a port on the TOS Expansion Board Remote Panel. The terminal setup and connections must be correct, including the terminal baud rate setting.

##### Terminal Cable Requirements

The cables that you supply for connecting terminals to your computer system must meet certain requirements. The two possible cabling situations and their requirements are described below.

##### *1. Terminal Cabled to a 25-Pin Port*

This is the more commonly used cable type. The 25-pin port on the terminal can be cabled directly to:

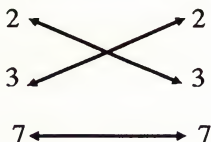
- The 25-pin port on the Thoroughbred PASSPORT box.
- A 25-pin serial port on the computer.
- A 25-pin port on the TOS Expansion Board Remote Panel.

The requirements for this cable are as follows:

25-PIN

25-PIN

Cable Type 1



Lines 2, 3, and 7 wired,  
with lines 2 and 3 swapped,  
and 7 straight through.

##### *2. Terminal Cabled to a 9-Pin Port*

The 25-pin port on the terminal can be cabled directly to a 9-pin serial port on the computer. Do not use this cable to connect the terminal to the Thoroughbred PASSPORT (see cable type 1), or to connect the PASSPORT to the computer.



The requirements for this cable are as follows:

9-PIN                      25-PIN

2 ←————→ 2

3 ←————→ 3

5 ←————→ 7

Cable Type 2

Lines from pins 2 and 3 straight through, and  
pin 5 to pin 7.

**NOTE:** The 9-pin to 25-pin cable supplied with the Thoroughbred PASSPORT is to be used only for connecting the PASSPORT. It does not meet the requirements for cabling to a terminal because lines 2 and 3 are swapped.

## 2. RUN THE THOROUGHbred BASIC CONFIGURATOR

You can run the BASIC Configurator from the TOS Utilities Menu or from BASIC. You must be at the console or monitor. From the utilities menu enter:

**\*NPSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*NPSD" <Return>**

A screen similar to the following is displayed, depending upon the devices that you have configured:

```

**      THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ##-DATE      **

1 -- HARD DISK UNIT 0
2 -- FLOPPY DISK UNIT 0

SELECT CONFIGURATION SOURCE:
```

Select Hard Disk Unit Ø as your configuration source.

SELECT CONFIGURATION SOURCE: 1 <Return>

The system reads the disk and displays the Configuration Type Menu, similar to the following:

```
** THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ##-DATE **
THE FOLLOWING TYPES OF SYSTEM INFORMATION ARE CONFIGURABLE:

1. SERIAL PORTS
2. DISK DIRECTORIES
3. MNEMONIC TABLES
4. SYSTEM OPTIONS
5. MEMORY BANKS
6. TERMINAL TABLES

ENTER 'X' TO CANCEL CONFIGURATION JOB
'Y' TO END JOB NORMALLY (SAVE NEW CONFIGURATION)

NOTE: 'X' AND 'Y' OPTIONS ONLY AFFECT THOSE CHANGES MADE WITH
SELECTIONS 1 THROUGH 5. TERMINAL TABLE CHANGES (MADE WITH
SELECTION 6) ARE SAVED AS THEY ARE MADE.

OS TABLE SIZE: #####
ENTER NUMBER OF CONFIGURATION TYPE:
```

### 3. CONFIGURE THE TOS SERIAL PORT FOR A TERMINAL

The Configuration Type Menu is displayed. Select Serial Ports (Option 1) from the menu prompt:

ENTER NUMBER OF CONFIGURATION TYPE: 1 <Return>

The system displays a screen similar to the following:

SERIAL PORT CONFIGURATION									
PORT	DEVICE	MODEL	BAUD	PRO- TOTAL	AUTO- START	BANK	PROGRAM	ATTACHED PRINTER	PRINTER MODEL
0	T0	----	*****		Y	1	**PSD		
1	T1	----	19200	E71S	Y	6	**PSD	P2	0300
2	T2	----	09600	E71S	Y	2	**PSD	P3	0300
3	T3	----	09600	E71S	N				
4	T4	----	19200	E71S	Y	4	**PSD		
5	T5	----	09600	E71S	Y	5	**PSD		
6	P1	1650	09600	N81S	-				

ENTER PORT NUMBER TO MODIFY <N>ext page, <P>revious page, or <CR>  
to exit:

**NOTE:** This screen shows Ports 0 through 5 configured as terminal "T0" through "T5". (Terminal "T0" is the console or monitor.) Port 6 is configured as printer "P1."

The Serial Port screen is displayed with the prompt:

ENTER PORT NUMBER TO MODIFY <N>ext page, <P>revious  
page, or <CR> to exit:

Enter the port number of the terminal you want to configure (to select the correct port number, see the chapter on "TOS Serial Port Numbers"). Then, enter a <Return> in response to the following prompts to accept the default value presented:

DELETE ENTRY? (Y/C.R.) N <Return>

ESCAPE KEY WILL CANCEL CHANGES  
RETURN KEY WITH NO INPUT WILL GO TO NEXT FIELD

DEVICE CODES ARE T0-TZ (TERMINALS); P1-PZ (PRINTERS)  
ENTER DEVICE CODE: T# <Return>

Valid "device codes" for terminals are T0 through T9 and TA through TZ. You cannot select a device code that is already configured.



ENTER COMMUNICATION PROTOCOL PARAMETERS:  
PARITY (E FOR EVEN, O FOR ODD, N FOR NO PARITY): **< Return >**

CHARACTER LENGTH (7 OR 8 BITS PER CHARACTER): **< Return >**

NUMBER OF STOP BITS (1 OR 2 BITS): **< Return >**

PROTOCOL (S FOR XON/XOFF, H FOR DTR, B FOR BOTH, N FOR NONE): **< Return >**

ENTER BAUD RATE: ##### **< Return >**

Enter the valid baud rate for your terminal (150, 300, 600, 1200, 2400 4800, 9600, or 19200).

AUTO START (Y/N): **Y < Return >**

ENTER BANK NUMBER: # **< Return >**

ENTER PROGRAM (BLANK FOR CONSOLE MODE): **\*\*PSD < Return >**

This specifies the name of a program to run at the terminal each time the system is started.

ATTACHED PRINTER (Y/N): **N < Return >**

The system redisplay the screen with the prompt:

ENTER PORT NUMBER TO MODIFY **< N >** ext page, **< P >** revious page, or **< CR >** to exit: **< Return >**

Enter **< Return >** to return to the Configuration Type Menu.

#### **4. SPECIFY THE TOS TERMINAL TABLE**

The Configuration Type Menu is displayed. Select Terminal Table (Option 6) from the menu prompt:

ENTER NUMBER OF CONFIGURATION TYPE: **6 < Return >**

The system displays the Terminal Configurator Menu, similar to the following:

- 
1. MODIFY TERMINAL TABLES
  2. MODIFY TERMINAL/MODEL CODE CONFIGURATION
  3. LOAD TABLE INTO TERMINAL

2. SELECT OPTION (1, 2, OR 3):

**IMPORTANT!** To exit from the Terminal Configurator Menu or from one of the options in the Terminal Configurator and return to the Configuration Type Menu, you must enter END followed by a <Return> .

**NOTE:** All prompts in the Terminal Configurator are numbered.

### *GET MODEL CODE FOR TERMINAL TABLE*

Option 1, Modify Terminal Tables, displays a list of existing terminal tables. TOS is shipped with many terminal tables already predefined and in most cases, one of these tables can be used, making it unnecessary to define a new table. Therefore, you will first check the Defined Terminal Table List under Option 1 for your terminal type.

The Terminal Configurator Menu is displayed. Select Option 1 from the menu prompt:

2. SELECT OPTION (1, 2, OR 3): 1 <Return>

Each terminal table is identified by a model code. These model codes are displayed on the Defined Terminal Table List along with the corresponding descriptions of the terminals.

The system displays a list of predefined terminal types. The following is a sample screen and may vary from the list provided with your system.

**DEFINED TERMINAL TABLE LIST**

ADM-3A	LSI MODEL ADM-3A	SEIKO	SEIKO 860 TERM
ALP62A	Alpha Micro 62-A	TVI912	TELEVIDEO 912
ALTOS-II	ALTOS-II TERMINAL	TVI920	TELEVIDEO 920
AMPEX	AMPEX TERMINAL	TVI950	TELEVIDEO 950
ANNARBOR	AMBASSADOR	VT100	DEC VT100
B4 7250	BASIC/FOUR 7250	VT52	DEC VT52
CIT-80	C ITOH MODEL 80	WY-50	WYSE WY-50 DISPLAY
COMM	COMMUNICATIONS PORT	WY-60	WYSE 60
DM 10	DATAMEDIA COLOR 10	WY50MGC	WYSE 50 (SPECIAL)
HZ1510	HAZELTINE 1510	WYSE75	WYSE 75
IBM PC	IBM MEMORY MAPPED	Z19	ZENITH TERMINAL
IBM3101	IBM 3101	ZDS	HEATH TERMINAL
KIMKT7	Kimtron KT-7	ZEN8001	ZENTEC MODEL 8001
MICOTERM	MICRO TERM	ZEPHYR	ZENTEC ZEPHYR
REMOTE	REMOTE MEMORY WRAPPED		

3. C-CREATE M-MODIFY D-DELETE L-LIST TABLE ENTER C, M, D, OR L:

Write down the model codes of the terminals you are installing, or if a printer is installed, enter L to list the table ("table listing only"), and then select the printer.

To exit from prompt #3:

3. C-CREATE M-MODIFY .... ENTER C, M, D, OR L: **END** <Return>

The system displays the Configuration Type Menu. You will re-enter the Terminal Configurator:

ENTER NUMBER OF CONFIGURATION TYPE: **6** <Return>

The system displays the Terminal Configurator Menu.

## *ASSOCIATE TERMINAL WITH MODEL CODE*

Option 2, Modify Terminal/Model Code Configuration, is now used to associate the correct terminal table from Option 1 with the terminal ID just specified in the previous step ("Configuring the TOS Serial Port for a Terminal").

The Terminal Configurator Menu is displayed. Select Option 2 from the menu prompt:

2. SELECT OPTION (1, 2, OR 3): **2** <Return>



The system displays a list of terminal ID's and the associated model codes (or terminal table names), along with the terminal description. The following is a sample screen:

TERMINAL/MODEL CODES		
T0	IBM PC	IBM MEMORY MAPPED
T1	COMM	COMMUNICATIONS PORT
T2	TVI950	TELEVIDEO 950
T3	WY-50	WYSE WY-50 DISPLAY

22. ENTER TERMINAL ID:

22. ENTER TERMINAL ID: ##

Valid terminal ID's are T0 through T9 and TA through TZ. If you are changing an existing terminal ID (displayed on the screen), the system will ask if you want to delete the entry.

24. ENTER MODEL CODE (8 CHARACTERS MAX): \_\_\_\_\_

Enter the model code listed in the Defined Terminal Table List to identify the terminal.

The terminal ID and model code association will be entered into the table and the system will redisplay prompt 22. You may enter TABLE to redisplay the list. After you have added all the terminals enter:

22. ENTER TERMINAL ID: **END** <Return>

SAVE NEW TERMINAL/MODEL TABLE (Y/N): **Y** <Return>

The system returns to the Terminal Configurator Menu.

**NOTE:** Option 3 is not supported in this version; however, the same operation is accomplished when the system is rebooted. At that time the terminal tables specified in Option 2 will be loaded to activate the characteristics for the defined terminals.

To exit to the Configuration Type Menu,



2. SELECT OPTION (1, 2, OR 3): **END <Return>**

The system displays the Configuration Type Menu.

**5. SAVE CONFIGURATION**

From the Configuration Type Menu, to save the configuration,

**ENTER NUMBER OF CONFIGURATION TYPE: Y <Return>**

The system responds with:

PRESS CTL-ALT-DEL TO RE-BOOT SYSTEM  
READY  
>

**6. REBOOT TOS AND TEST**

Before you reboot, make sure that all terminals are attached, turned on, and that there are no users on your system. After you restart your system, test the terminals to make sure they work.



## 4. ADDING SYSTEM PRINTERS

---

### A. ADDING A PARALLEL PRINTER

Thoroughbred/OS supports one parallel printer, which is preconfigured into your system.

Configure the printer switches for the desired settings, including the printer baud rate (refer to the documentation from your printer manufacturer). Then connect the parallel printer to your computer parallel port and a power supply.

The parallel printer is identified in Thoroughbred/OS as device "LP" (Line Printer).

### B. ADDING A SERIAL PRINTER

Thoroughbred/OS supports up to 32 serial printers, identified in TOS as devices "P1" through "PZ". Each printer can be set up as either a system port printer or a system slave printer (described below).

System port printers are attached to the serial ports on your computer. (For TOS 6-User systems and higher, system port printers can also be connected to the ports on the Expansion Board Remote Panel.)

These printers require exclusive use of a serial port on your system and are configured in TOS similar to adding a terminal on your system (see procedure below).

System slave printers are attached to the auxiliary (printer) port on the back of a user's terminal and are configured in TOS by indicating the terminal and printer ID (see procedure below). In effect, the user's terminal and the slave printer share the system serial port and can use it at the same time. (See "Slave Printer Operation" at the end of this chapter for restrictions.)

## 1. CONNECT YOUR SERIAL PRINTER

### System Port Printers:

Connect the printer to a serial port on the computer or to a port on the TOS Expansion Board Remote Panel. The printer switch settings and connections must be properly set, including the printer baud rate setting (refer to documentation from your printer manufacturer).

## System Slave Printers:

Connect the printer to the terminal printer port. The printer switch settings and connections must be properly set, including the printer baud rate setting. Also, you must establish "handshaking" between the slave printer and the terminal printer port. This may require adjustments to the printer switch settings as well as the terminal setup (refer to the manufacturer documentation).

## 2. RUN THE THOROUGHbred BASIC CONFIGURATOR

You can run the BASIC Configurator from the TOS Utilities Menu or from BASIC. You must be at the console or monitor. From the utilities menu enter:

**\*NPSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*NPSD" <Return>**

A screen similar to the following is displayed, depending upon the devices that you have configured:

```

**  THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ##-DATE  **

1 -- HARD DISK UNIT 0
2 -- FLOPPY DISK UNIT 0

SELECT CONFIGURATION SOURCE:
```

Select Hard Disk Unit 0 as your configuration source.

**SELECT CONFIGURATION SOURCE: 1 <Return>**

The system reads the disk and displays the Configuration Type Menu, similar to the following:



```

** THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ##-DATE **
  THE FOLLOWING TYPES OF SYSTEM INFORMATION ARE CONFIGURABLE:

    1. SERIAL PORTS
    2. DISK DIRECTORIES
    3. MNEMONIC TABLES
    4. SYSTEM OPTIONS
    5. MEMORY BANKS
    6. TERMINAL TABLES

  ENTER 'X' TO CANCEL CONFIGURATION JOB
  'Y' TO END JOB NORMALLY (SAVE NEW CONFIGURATION)

  NOTE: 'X' AND 'Y' OPTIONS ONLY AFFECT THOSE CHANGES MADE WITH
  SELECTIONS 1 THROUGH 5. TERMINAL TABLE CHANGES (MADE WITH
  SELECTION 6) ARE SAVED AS THEY ARE MADE.

  OS TABLE SIZE: #####
  ENTER NUMBER OF CONFIGURATION TYPE:
  
```

### 3. CONFIGURE THE TOS SERIAL PORT FOR A PRINTER

The Configuration Type Menu is displayed. Select Serial Ports (Option 1) from the menu prompt:

ENTER NUMBER OF CONFIGURATION TYPE: 1 <Return>

The system displays a screen similar to the following:

```

          SERIAL PORT CONFIGURATION
    PORT  DEVICE  MODEL  BAUD  PRO-  AUTO-  BANK  PROGRAM  ATTACHED  PRINTER
          T0      ----  *****  Y      START  1      **PSD
          T1      ----  19200  E71S  Y      6      **PSD      P2      0300
          T2      ----  09600  E71S  Y      2      **PSD      P3      0300
          T3      ----  09600  E71S  N
          T4      ----  19200  E71S  Y      4      **PSD
          T5      ----  09600  E71S  Y      5      **PSD
          P1      1650  09600  N81S  -
  
```

ENTER PORT NUMBER TO MODIFY <N>ext page, <P>revious page, or <CR>  
 to exit:

**NOTE:** This screen shows Port 6 configured as a system port printer ("P1"), and Ports 1 and 2 configured as terminals ("T1 and "T2") with system slave printers ("P2" and "P3") attached to the terminals.

### System Port Printers:

The Serial Port screen is displayed with the prompt:

ENTER PORT NUMBER TO MODIFY <N> ext page, <P> revious page, or <CR> to exit:

Enter the port number to which the printer is attached (to select the correct port number, see the chapter on "TOS Serial Port Numbers"). Then respond to the following prompts:

DELETE ENTRY? (Y/C.R.) N <Return>

ESCAPE KEY WILL CANCEL CHANGES  
RETURN KEY WITH NO INPUT WILL GO TO NEXT FIELD

DEVICE CODES ARE T0-TZ (TERMINALS); P1-PZ (PRINTERS)  
ENTER DEVICE CODE:

Valid "device codes" for serial printers are P1 through PZ. You cannot select a device code that is already configured.

ENTER COMMUNICATION PROTOCOL PARAMETERS:  
PARITY (E FOR EVEN, O FOR ODD, N FOR NO PARITY): <Return>

CHARACTER LENGTH (7 OR 8 BITS PER CHARACTER): <Return>

NUMBER OF STOP BITS (1 OR 2 BITS): <Return>

PROTOCOL (S FOR XON/XOFF, H FOR DTR, B FOR BOTH, N FOR NONE): <Return>

ENTER MODEL CODE: 1650 <Return>

Model code 0300 can also be used. Which model code you use depends upon whether or not your printer is configured for auto line feed.

ENTER BAUD RATE: ##### <Return>

Enter the valid baud rate for your printer (150, 300, 600, 1200, 2400, 4800, 9600, or 19200).

The system redisplay the screen with the prompt:

AUTO START (Y/N): **< Return >**

ENTER BANK NUMBER: **< Return >**

ENTER PROGRAM (BLANK FOR CONSOLE MODE): **\*\*PSD  
< Return >**

ATTACHED PRINTER (Y/N): **< Return >**

ENTER PORT NUMBER TO MODIFY **<N>** ext page, **<P>** revious  
page, **<CR>** to exit:

If you are finished configuring printers, enter a **< Return >** to return to the Configuration Type Menu.

### **System Slave Printers:**

The Serial Port screen is displayed with the prompt:

ENTER PORT NUMBER TO MODIFY **<N>** ext page, **<P>** revious  
page, **<CR>** to exit:

Enter the port number of the terminal to which the printer is attached (to select the correct port number, see the chapter on "TOS Serial Port Numbers"). Then enter a **< Return >** in response to the following prompts to accept the default value presented:

DELETE ENTRY? (Y/C.R.) **N < Return >**

DEVICE CODES ARE T0-TZ (TERMINALS); P1-PZ (PRINTERS)  
ENTER DEVICE CODE: **T# < Return >**

ENTER COMMUNICATION PROTOCOL PARAMETERS:  
PARITY (E FOR EVEN, O FOR ODD, N FOR NO PARITY): **< Return >**

CHARACTER LENGTH (7 OR 8 BITS PER CHARACTER): **< Return >**

NUMBER OF STOP BITS (1 OR 2 BITS): **< Return >**

PROTOCOL (S FOR XON/XOFF, H FOR DTR, B FOR BOTH, N FOR  
NONE): **< Return >**

ENTER BAUD RATE: **##### < Return >**



AUTO START (Y/N): **Y** <Return>

ENTER BANK NUMBER: **#** <Return>

ENTER PROGRAM (BLANK FOR CONSOLE MODE): **\*\*PSD**  
<Return>

ATTACHED PRINTER (Y/N): **Y** <Return>

ENTER ATTACHED PRINTER DEVICE CODE (P1-PZ):

Valid "device codes" for serial printers are P1 through PZ. You cannot select a printer name that is already configured.

ENTER ATTACHED PRINTER MODEL CODE: **1650** <Return>

Model code 0300 can also be used. Which model code you use depends upon whether or not your printer is configured for auto line feed.

The system redisplay the screen with the prompt:

ENTER PORT NUMBER TO MODIFY <N>ext page, <P>revious  
page, <CR> to exit:

If you are finished configuring printers, enter a <Return> to return to the Configuration Type Menu.

#### **4. SAVE CONFIGURATION**

From the Configuration Type Menu, to save the configuration,

ENTER NUMBER OF CONFIGURATION TYPE: **Y** <Return>

The system responds with:

PRESS CTL-ALT-DEL TO RE-BOOT SYSTEM  
READY  
>

#### **5. REBOOT TOS AND TEST**

Before you reboot, make sure that the printers are attached, turned on, and that there are no users on your system. After you restart your system, test the printers to make sure they work.

## C. SLAVE PRINTER OPERATION

Slave printer support is available ONLY for the Televideo 950, Wyse 50, and Wyse 60 terminals (and not for other terminals that emulate the supported terminals). Additional terminals may be added to this list; check with your Thoroughbred dealer or sales representative.

Slave printers are system printers available not only to the local terminal but to all users. The user is responsible for establishing the handshaking between the slave printer and the terminal printer port. This may require adjustments to the printer switch settings and the terminal setup. A slave printer can be attached to a terminal that is either auto-started or not auto-started in the serial port configuration.

In the current implementation of slave printers, the time out logic has not been implemented. This means that currently an Error Ø will not occur if the printer is not ready to receive data. Printing will simply halt until the printer is made ready again.

The use of the escape key will normally wait for an output to a terminal or slave printer to finish before escaping. This means that if the output is suspended because of an XOFF from the printer/terminal (or CTRL-S from the operator), the escape will not take effect until the XON (or CTRL-Q) is received, which will allow the buffer output to complete.

If the printer should become unready because of lack of paper, off-line etc., the Televideo 950, Wyse 50, and Wyse 60 terminals will send an XOFF to the host system and then suspend operation until the unready condition is corrected. Once the printer is ready an XON will be sent to the host and the terminal will be available again.

It is very important that the operator ensure the readiness of the slave printer before using it (paper, ribbon, on-line, etc.). If the terminal doing the printing and the slave printer terminal are different units and the printer becomes unready while printing, these terminals will both suspend operation and will not respond to an escape until the printer is made ready.

Since the computer, terminal, and printer control the flow of data with the XON/XOFF protocol, CTRL-S and CTRL-Q should not be used on any terminal that has an active slave printer.



## 5. ADDING A 2ND FLOPPY DISK DRIVE

---

Thoroughbred/OS is preconfigured for one floppy disk drive. If you have two floppy disk drives on your system, this chapter shows you how to add the second drive.

### PROCEDURE

#### 1. RUN THE THOROUGHbred BASIC CONFIGURATOR

You can run the BASIC Configurator from the TOS Utilities Menu or from BASIC. You must be at the console or monitor. From the utilities menu enter:

**\*NPSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*NPSD" <Return>**

A screen similar to the following is displayed, depending upon the devices that you have configured:

```

**      THOROUGHbred/OS BASIC CONFIGURATOR-VERSION **DATE      **

1 -- HARD DISK UNIT 0
2 -- FLOPPY DISK UNIT 0

SELECT CONFIGURATION SOURCE:
```

Select Hard Disk Unit 0 as your configuration source:

**SELECT CONFIGURATION SOURCE: 1 <Return>**



The system reads the disk and displays the Configuration Type Menu, similar to the following:

```

** THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ##-DATE **
THE FOLLOWING TYPES OF SYSTEM INFORMATION ARE CONFIGURABLE:

    1. SERIAL PORTS
    2. DISK DIRECTORIES
    3. MNEMONIC TABLES
    4. SYSTEM OPTIONS
    5. MEMORY BANKS
    6. TERMINAL TABLES

ENTER 'X' TO CANCEL CONFIGURATION JOB
    'Y' TO END JOB NORMALLY (SAVE NEW CONFIGURATION)

NOTE: 'X' AND 'Y' OPTIONS ONLY AFFECT THOSE CHANGES MADE WITH
      SELECTIONS 1 THROUGH 5. TERMINAL TABLE CHANGES (MADE WITH
      SELECTION 6) ARE SAVED AS THEY ARE MADE.

OS TABLE SIZE: #####
ENTER NUMBER OF CONFIGURATION TYPE:
```

## 2. CONFIGURE A DISK DIRECTORY FOR THE 2ND DRIVE

The Configuration Type Menu is displayed. To select Disk Directories (Option 2) from the menu prompt:

ENTER NUMBER OF CONFIGURATION TYPE: 2 <Return>

The system displays a screen similar to the following:

DISK CONFIGURATION				
DIRECTORY CODE	TYPE H(ard)/F(loppy)	UNIT NUMBER	DIRECTORY NAME	TYPE OF BUFFERING
D0	H	0	UTIL	READ/WRITE
D1				
D2				
D3				
D4				
D5				
D6				
D7				
D8				
D9	F	0	T/OS	READ ONLY

ENTER DIRECTORY CODE TO MODIFY (CR TO EXIT):

We recommend that you use directory code "D8" for your second floppy drive:

ENTER DIRECTORY CODE TO MODIFY (C.R. TO EXIT): **D8** <Return>

ENTER 'H' FOR HARD DISK, 'F' FOR FLOPPY: **F** <Return>

ENTER DRIVE NUMBER (0-3): **1** <Return>

ENTER DIRECTORY NAME:

Any directory name from 1 to 4 characters long is valid. You can enter the name of a directory that you have not yet created.

ENTER CODE FOR TYPE OF DEVICE BUFFERING (N=NONE, R=READ ONLY, W=READ AND WRITE): **R** <Return>

The system redisplayes the screen with the prompt:

ENTER DIRECTORY CODE TO MODIFY (C.R. TO EXIT):

To exit and return to the Configuration Type Menu, enter a <Return> .

### 3. SAVE CONFIGURATION

From the Configuration Type Menu, to save the configuration:

ENTER NUMBER OF CONFIGURATION TYPE: **Y** <Return>

The system writes the information to disk and responds with:

```
PRESS CTL-ALT-DEL TO RE-BOOT SYSTEM  
READY  
>
```

#### 4. REBOOT TOS AND TEST

Before you reboot, make sure that there are no other users on your system.

When you reboot, the system automatically makes your second floppy drive accessible to you as device "F1".



## 6. ADDING A 2ND HARD DISK DRIVE

---

This chapter describes how to add a second hard disk to your system.

### A. INSTALL 2ND HARD DISK FOR TOS

**Create 2 current complete backup copies of any data on your hard disks.**

**Collect Bad Track Information for your second hard disk (see "TOS Installation Guide") for more information.**

**Install your hard disk drive using the manufacturer documentation.**

**Run the DOS SETUP program on the DOS Diagnostic diskette.**

In this section you will perform selected procedures documented in the "TOS Installation Guide." Since the installation guide is used to install a single hard disk (H0), when installing a second hard disk, the documentation may differ. Be aware that the system may prompt you to select the device (H0 or H1).

**WARNING!** If you select the wrong device, you may destroy all data on your first hard disk.

**Locate diskette labeled "THOROUGHbred/OS SYSTEM (T/OS)."**

**Make sure that there is no write protection tab on this diskette.**

**Boot the diskette labeled "THOROUGHbred/OS SYSTEM."**

The system displays the Installation Menu. This menu is used to install your second hard disk. Follow the procedures documented in the Installation Guide taking note of the following differences:

### Step 1: Select Hard Disk Types

This option is documented in the installation guide in Chapter 5, Part A (step 1).

**NOTE:** In this procedure, you must select hard disk types for BOTH your hard disks (H0 and H1).

## Step 2: Configure Disk Directories

This option is documented in the installation guide in Chapter 5, Part A (step 2). At the drive number prompt select 1.

ENTER DRIVE NUMBER (0-3) 1 <Return>

**NOTE:** Select the floppy disk as the configuration source. Then configure a disk directory for your second hard disk.

## Step 3: Reboot System

Select Option 3 and reboot your system as documented in Chapter 5, Part A, (step 3).

The system displays the Installation Menu.

## Step 4: Partition Hard Disks

This option is documented in the installation guide in Chapter 5, Part B (step 5).

**IMPORTANT!** Option 4 on the Installation Menu is used to clear and partition the second hard disk, destroying all data on your disk. It is vital that you select the correct disk designation for the second hard disk (H1) and that you do not repeat the procedure on your first hard disk. If you perform the procedure on your first hard disk, you will lose all data on that disk!

## Step 5: Initialize Hard Disks

This option is documented in the installation guide in Chapter 5, Part B (step 5).

**IMPORTANT!** Option 5 on the Installation Menu is used to test and format the second hard disk, destroying all data on your disk. It is vital that you select the correct disk designation for the second hard disk (H1) and that you do not repeat the procedure for your first hard disk. If you perform the procedure on your first hard disk, you will lose all data on that disk!

**Do not include BASIC on the second hard disk.**

**When you are asked to enter a directory name, enter HD02 (this can be renamed later if desired).**

When this step is complete, leave the floppy diskette in the drive.

## **B. CONFIGURE THE TOS SYSTEM DISKETTE**

This procedure is used to update the diskette labeled "THOROUGHRED/OS SYSTEM (T/OS)" with the configuration for your second hard disk. This procedure should be performed if you want to keep a system diskette that can access the second hard disk. You may also want to repeat this procedure for each backup copy that you have made of the system diskette.

To update the diskette, you will perform the "Select Hard Disk Types" procedure a second time, this time from the hard disk rather than the floppy. this is accomplished as follows:

The Installation Menu is displayed.

**Select Option 3 (Reboot System) from the menu, but do not reboot!**

**Enter: RUN "\*SETDSK" <Return>**

The system displays the Select Hard Disk Configuration screen.

This procedure is documented in the installation guide in Chapter 5, Part A (step 1).

**NOTE:** In this procedure, you must select hard disk types for BOTH your hard disks (H0 and H1).

Repeat this procedure for each backup copy that you have made of the "THOROUGHRED/OS SYSTEM (T/OS)" diskette, but first make sure there is no write-protection tab on the diskette.

Leave the diskette in the floppy drive and boot TOS from the floppy.

## **C. CONFIGURE A 2ND HARD DISK DIRECTORY**

This procedure is accomplished using Option 2 on the Installation Menu. Option 2 (Configure Disk Directories) is documented in the installation guide in Chapter 5, Part A (step 2).

**NOTE:** Select your first hard disk (H0) as the configuration source. Then configure a disk directory for your second hard disk. At the drive number prompt select 1.

**ENTER DRIVE NUMBER (0 - 3): 1 <Return>.**

After you complete this procedure, boot from your hard disk, and the second hard disk should be accessible. This completes the installation procedure for the second hard disk.



## 7. ADDING DIRECTORIES

---

This chapter tells you:

- A. How to add directories on your hard disk.
- B. How to set up the 10 directories in the TOS configuration that can be accessible at any one time.
- C. How to make any directory accessible by naming it as 1 of the 10 accessible directories.

### A. ADDING DIRECTORIES ON YOUR HARD DISK

When you installed your hard disk using the "Thoroughbred/OS Installation Guide," you formatted the disk and created one directory on the disk. The following procedure shows you how to create additional directories on the disk.

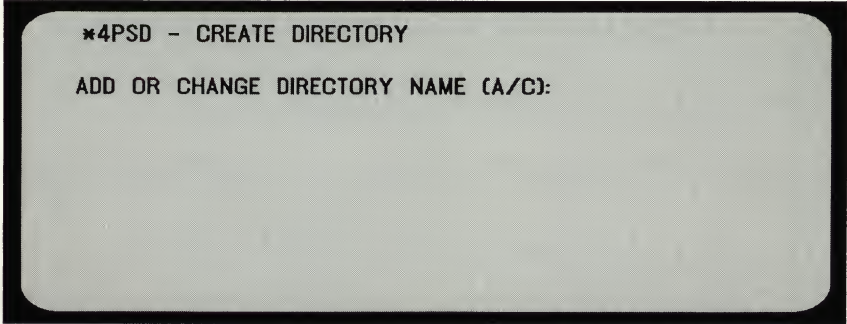
You can run the \*4PSD Utility from the TOS Utilities Menu or from BASIC. From the utilities menu, enter:

**\*4PSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*4PSD" <Return>**

A screen similar to the following is displayed:



```
*4PSD - CREATE DIRECTORY
```

```
ADD OR CHANGE DIRECTORY NAME (A/C):
```

ADD OR CHANGE DIRECTORY NAME (A/C): A <Return>

ENTER DISK - HARD OR FLOPPY (H/F): H <Return>

If you have two hard disks, the system prompts you to select the hard disk drive on which you wish to create directories:

WHICH DRIVE UNIT - 0 OR 1:

The system displays the existing directories in a screen similar to the following:

```
*4PSD - CREATE DIRECTORY

ADD OR CHANGE DIRECTORY NAME (A/C): A

ENTER DISK - HARD OR FLOPPY (H/F): H

ENTER NUMBER OF FILES:

      EXISTING DIRECTORIES ARE:
      UTIL      COND      LJET
      WORD      COPY      PROG
      BLIB      VOL1      SURV
```

ENTER NUMBER OF FILES:

Enter the maximum number of files that you expect to create in this directory. This is the directory size and cannot be changed once the directory is created. The minimum is 16.

ENTER DIRECTORY NAME:

The directory name can be from 1 to 4 characters long. You must select a name that does not conflict with existing directory or file names on the same hard disk.

PROCESS COMPLETE (CR TO CONTINUE):

To create another directory, enter <Return> . To exit and return to the utilities menu, enter <F4> .

## B. CONFIGURING 10 ACCESSIBLE DIRECTORIES

The following procedure shows you how to set up the 10 directories in the TOS configuration that can be accessible at any one time.

## 1. Run the Thoroughbred BASIC Configurator

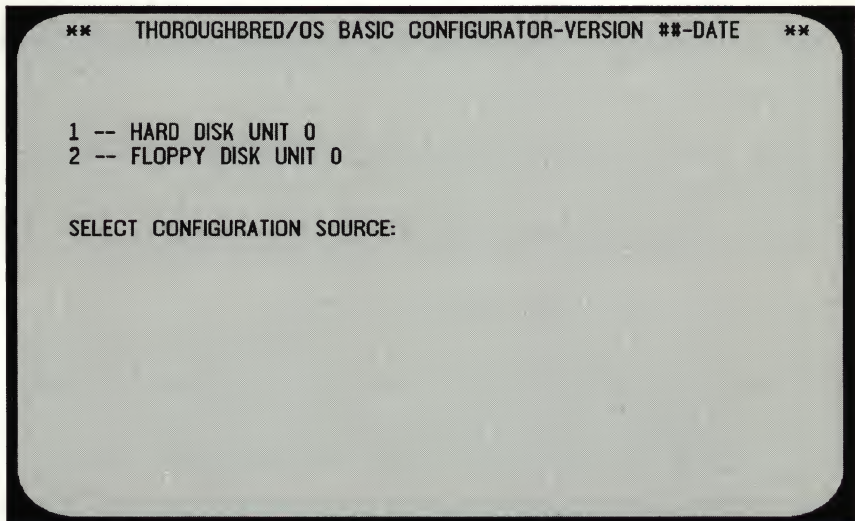
You can run the BASIC Configurator from the TOS Utilities Menu or from BASIC. You must be at the console or monitor. From the utilities menu enter:

**\*NPSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*NPSD" <Return>**

A screen similar to the following is displayed, depending upon the devices that you have configured:



Select Hard Disk Unit 0 as your configuration source:

**SELECT CONFIGURATION SOURCE: 1 <Return>**

The system reads the disk and displays the Configuration Type Menu, similar to the following:



```

** THOROUGHbred/OS BASIC CONFIGURATOR-VERSION ** -DATE **
THE FOLLOWING TYPES OF SYSTEM INFORMATION ARE CONFIGURABLE:

```

1. SERIAL PORTS
2. DISK DIRECTORIES
3. MNEMONIC TABLES
4. SYSTEM OPTIONS
5. MEMORY BANKS
6. TERMINAL TABLES

```

ENTER 'X' TO CANCEL CONFIGURATION JOB
'Y' TO END JOB NORMALLY (SAVE NEW CONFIGURATION)

```

```

NOTE: 'X' AND 'Y' OPTIONS ONLY AFFECT THOSE CHANGES MADE WITH
SELECTIONS 1 THROUGH 5. TERMINAL TABLE CHANGES (MADE WITH
SELECTION 6) ARE SAVED AS THEY ARE MADE.

```

```

OS TABLE SIZE: #####
ENTER NUMBER OF CONFIGURATION TYPE:

```

## 2. Configure the Disk Directories

The Configuration Type Menu is displayed. Select Disk Directories (Option 2) from the menu prompt:

ENTER NUMBER OF CONFIGURATION TYPE: 2 <Return>

The system displays a screen similar to the following:

```

          DISK CONFIGURATION
    DIRECTORY   TYPE      UNIT   DIRECTORY   TYPE OF
    CODE        H(ard)/F(loppy)  NUMBER    NAME      BUFFERING
    D0              H              0        UTIL      READ/WRITE
    D1
    D2
    D3
    D4
    D5
    D6
    D7
    D8
    D9              F              0        T/OS      READ ONLY

```

```

ENTER DIRECTORY CODE TO MODIFY (CR TO EXIT):

```



The "Directory Code" identifies each of the 10 directories that can be accessible at one time: DØ through D9. (The "Directory Code" is sometimes referred to as a logical disk or disk number.)

You must have at least one directory code configured for each hard or floppy disk on your system if you want to be able to access the device.

We recommend that you configure a directory for each directory code that is not already configured with a directory.

ENTER DIRECTORY CODE TO MODIFY (C.R. TO EXIT):

Enter the directory code (e.g., D1).

ENTER 'H' FOR HARD DISK, 'F' FOR FLOPPY: **H** <Return>

ENTER DRIVE NUMBER (0-3):

If you have a single hard disk, select drive Ø. Otherwise, select the hard disk drive on which you wish to configure directories.

ENTER DIRECTORY NAME:

The directory name can be from 1 to 4 characters long. You may enter the name of a directory that you have not yet created.

ENTER CODE FOR TYPE OF DEVICE BUFFERING (N = NONE, R = READ-ONLY, W = READ AND WRITE): **W** <Return>

**NOTE:** This selects Read/Write Buffering for the entire hard disk. If, due to power failure or any other reason, data integrity takes priority over your system's performance speed, it is suggested that you select 'R' for Read-Only Device Buffering.

The system redisplay the screen with the prompt:

ENTER DIRECTORY CODE TO MODIFY (C.R. TO EXIT):

Repeat this procedure to configure all 10 directory codes. To exit and return to the Configuration Type Menu, enter a <Return>.

### 3. Save Configuration

From the Configuration Type Menu, to save the configuration:

ENTER NUMBER OF CONFIGURATION TYPE: **Y** <Return>

The system writes the information to disk and responds with:

PRESS CTL-ALT-DEL TO RE-BOOT SYSTEM  
READY  
>

#### 4. Reboot TOS

Before you reboot, make sure there are no other users on your system.

When you reboot, the system automatically brings your configured directories on-line. If you configured a directory name that did not exist, it will be disabled.

### C. MAKING A DIRECTORY ACCESSIBLE

In the previous section you named the 10 directories that can be accessible at one time. When you booted the system, these directories became accessible, or came "on-line."

You may want to access an off-line directory at some time. You must bring it on-line by swapping it with one of the directories currently on-line.

To bring it on-line, you may want to configure it as one of the 10 accessible directories as described in the previous section, especially if you plan to use the directory every day. If you decide to do this, you must reboot the system before the directory becomes available.

In some cases you may only want temporary access to the directory. The method shown below allows you to swap directories without having to reboot the system.

You can run the \*JPSD Utility from the TOS Utilities Menu or from BASIC. From the utilities menu, enter:

**\*JPSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*JPSD" <Return>**

A screen similar to the following is displayed:

```

    *JPSD - SELECT DISK DIRECTORIES

    DISK      DIRECTORY
    0  HO      UTIL
    1  HO      WORD
    2  HO      BLIB

    7  HO      LAM2
    8  F1      BACK      D
    9  F0      T/OS      D

    ENTER: 'D' TO CHANGE DISKETTE
           'S' TO CHANGE DIRECTORY
           OR DISK NUMBER TO CHANGE

    ' ' = ENABLED DISK      'L' = LOCAL DISABLE
    'D' = DISABLE DISK      'R' = RESERVED DISK
  
```

The following prompt is displayed. You will swap directories:

```

ENTER: 'D' TO CHANGE DISKETTE
'S' TO CHANGE DIRECTORY
OR DISK NUMBER TO CHANGE: S <Return>
  
```

The system displays all existing directories in a screen similar to the following:

```

    *JPSD - SELECT DISK DIRECTORIES

    DISK      DIRECTORY      EXISTING DIRECTORIES ARE:
    0  HO      UTIL          HO-UTIL      HO-SURV
    1  HO      WORD          HO-WORD      H1-LAM2
    2  HO      BLIB          HO-BLIB      H1-DEMO

    7  HO      LAM2
    8  F1      BACK      D    HO-VOL3
    9  F0      T/OS      D    HO-DATA
                                HO-LJET

    ENTER DISK NUMBER TO CHANGE:
  
```



**ENTER DISK NUMBER TO CHANGE:**

Enter the number of a directory that you wish replaced with an off-line directory (e.g., enter 2 to replace BLIB).

**ENTER DIRECTORY NAME**

Enter a directory name (1 - 4 characters) from the "Existing Directories" list on your screen. The directory must be on the same hard disk as the directory that you are replacing.

The system swaps the directories and responds with:

**ENTER DISK NUMBER TO CHANGE:**

Repeat this procedure to swap other directories. To exit and return to the utilities menu, enter <F4>.



## 8. FORMATTING DISKETTES

---

Diskettes can be formatted in any of the supported formats, such as:

360 Kilobyte 5.25 inch

720 Kilobyte 3.5 inch

1.2 Megabyte 5.25

1.44 Megabyte 3.5 inch

### DISKETTE FORMATTING PROCEDURE

You can run the \*1PSD Utility from the TOS Utilities Menu or from BASIC.  
From the utilities menu, enter:

**\*1PSD <Return>**

or from BASIC Console Mode, enter:

**RUN "\*1PSD" <Return>**

The system displays a screen similar to the following:

A screenshot of a computer screen showing the \*1PSD utility. The screen has a dark background with light-colored text. The text is centered and reads: \*1PSD - INITIALIZE DEVICE, followed by a blank line, then THIS PROGRAM WILL DESTROY ALL INFORMATION ON THE SELECTED DEVICE! IS THIS WHAT YOU WANT? in all caps.

**\*1PSD - INITIALIZE DEVICE**

**THIS PROGRAM WILL DESTROY ALL INFORMATION ON THE  
SELECTED DEVICE! IS THIS WHAT YOU WANT?**

**THIS PROGRAM WILL DESTROY ALL INFORMATION ON THE  
SELECTED DEVICE! IS THIS WHAT YOU WANT? (Y/N): Y <Return>**

**Warning!** Make sure that you select the floppy drive (F0 or F1) at the next prompt. If you select the hard disk by mistake (H0 or H1) you can destroy all data on the disk!

ENTER DEVICE NAME (H0,F0) ('CR' = F0) <Return>

ENTER DIRECTORY NAME:

The directory name can be from 1 to 4 characters long.

NUMBER OF FILES (20 TO 32760): # <Return>

ENTER DIRECTORY NAME ('CR' = END): <Return>

IS THE ABOVE INFORMATION CORRECT? (Y/N): Y <Return>

LOAD DISKETTE TO BE INITIALIZED IN DRIVE F#, 'CR' WHEN READY  
OR 'F4' TO END

Insert the diskette into the drive and enter: <Return>.

DOES DISKETTE NEED TO BE FORMATTED? (Y/N): Y <Return>

The system responds with the following menu:

IS DISKETTE TO BE FORMATTED A

- 1) 360Kb
- 2) 720Kb
- 3) 1.2Mb
- 4) 1.44Mb

DISKETTE? ('CR'=1)

Select the format for the diskette. The system responds with:

FORMATTING: ##

INITIALIZING DIRECTORIES

INITIALIZATION COMPLETE ('CR' TO END): <Return>

Repeat the procedure to initialize additional diskettes.

## 9. BACKING UP HARD DISK DATA

---

This chapter explains the importance of performing regular backups, describes a sample backup routine, and lists the Thoroughbred/OS options available for creating backup copies of your hard disk data.

### A. INTRODUCTION

Data is susceptible to corruption or damage from a variety of sources including power failures, static electricity, hardware failure, and improper procedures (e.g., aborting programs improperly or turning the computer on or off at inappropriate times). At some time or another such hazards are bound to occur to any system.

The best defense you have against any problems causing data loss on your system is properly maintained backups: regularly rotated diskettes, tapes, or removable hard disks that contain your entire system's data files and programs. If necessary, these backups should allow you to recreate your entire system on different hardware having the same configuration.

It is best if you design and use a regular routine for creating backup copies of your hard disk data. (You may also want to backup your system at an unscheduled time, such as after a large data transaction.) You should be aware of your backup life cycle: your oldest available backup. (You have a problem if you discover that a data loss occurred two weeks ago and your oldest available backup is from one week ago.) It is additional insurance to keep your backup copies off-site in case of disaster, and you should periodically check the readability of your backups.

The following example provides one guideline for performing regular backups; your system may have different requirements. The example assumes a tape backup system that can hold all hard disk data on one tape.

### B. EXAMPLE

**DAILY BACKUP** : end of day, recycled weekly, requires 5 tapes.

Week 1 - MON TUE WED THUR FRI



Week 2 - MON TUE WED THUR FRI



**WEEKLY BACKUP** : end of week, recycled monthly, requires 5 tapes.

Jan. - WEEK-1 WEEK-2 WEEK-3 WEEK-4 WEEK-5



Feb. - WEEK-1 WEEK-2 WEEK-3 WEEK-4

**MONTHLY BACKUP** : end of month, recycled yearly, requires 12 tapes.

Year 1 - JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC



Year 2 - JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

**YEARLY BACKUP** : end of year, not recycled, requires 1 tape per year.

YEAR-1 YEAR-2 YEAR-3 YEAR-4 etc.

## C. TOS OPTIONS

Thoroughbred/OS supports two choices of media for performing system backups:

- Diskette
- Tape Cartridge

These options are described below. For detailed information on the operation of the TOS backup/restore utilities, see the reference manual.

### Diskette Backup/Restore

The recommended procedure for creating diskette backups is the \*VPSD Utility ("Diskette Backup/Restore").

**NOTE:** The \*SPSD Utility ("Transfer Programs/Files") also provides the ability to transfer files to diskette. This method requires that you use formatted diskettes that contain a directory with a directory size (number of files) sufficient for the backup. The diskettes are treated as removable file systems and must be logically attached and detached from the system using the \*UPSD Utility, therefore backups cannot span diskettes.



The \*VPSD Utility overwrites all data on the diskette. The diskette does not need to contain a directory and does not need to be logically attached to the system.

The \*VPSD Utility provides the following options:

- Select up to 10 available directories.
- Select data files, programs, or both.
- Select individual files by name.
- Automatically calculate the number of diskettes required for your back-up.

### **Tape Backup/Restore**

There are two procedures available for creating tape backups: the \*WPSD Utility ("Tape Backup/Restore") and the \*MIRROR Utility.

The \*WPSD Utility provides the following options:

- Select up to 10 available directories.
- Select files by entire directory, by individual file or group (mask), or by name range.
- Select files by type (Program, Direct, Indexed, Sort, Serial).
- Verify backup by comparing tape data to disk data.

The \*MIRROR Utility provides the following features:

- Runs faster than the \*WPSD Utility.
- Creates a "mirror" copy of the hard disk (a binary copy).
- Spans tapes during the backup; the utility is not File or Directory oriented.
- Offers two levels of verification: Full Data comparison, which compares the tape byte for byte, or Partial Data, which compares the first 2048 bytes of each record read.



## 10. ACTIVATING TOS OR DOS

---

This information applies only to partitioned hard disks containing DOS and TOS, after both operating systems have been loaded.

In order to enter DOS or TOS at any particular time, it is necessary to boot that particular operating system. The hard disk boots an OS depending upon the active partition. The active partition can be specified from either DOS or TOS. You may switch the active partition as follows:

- Under DOS, run FDISK and select the option to "CHANGE ACTIVE PARTITION".
- Under TOS, run the \*PARTDSK Utility (from the TOS Utilities Menu ENTER; \*PARTDSK and <Return>) and select the option to "ACTIVATE PARTITION".

Upon rebooting, the system enters the active OS.

## NOTES

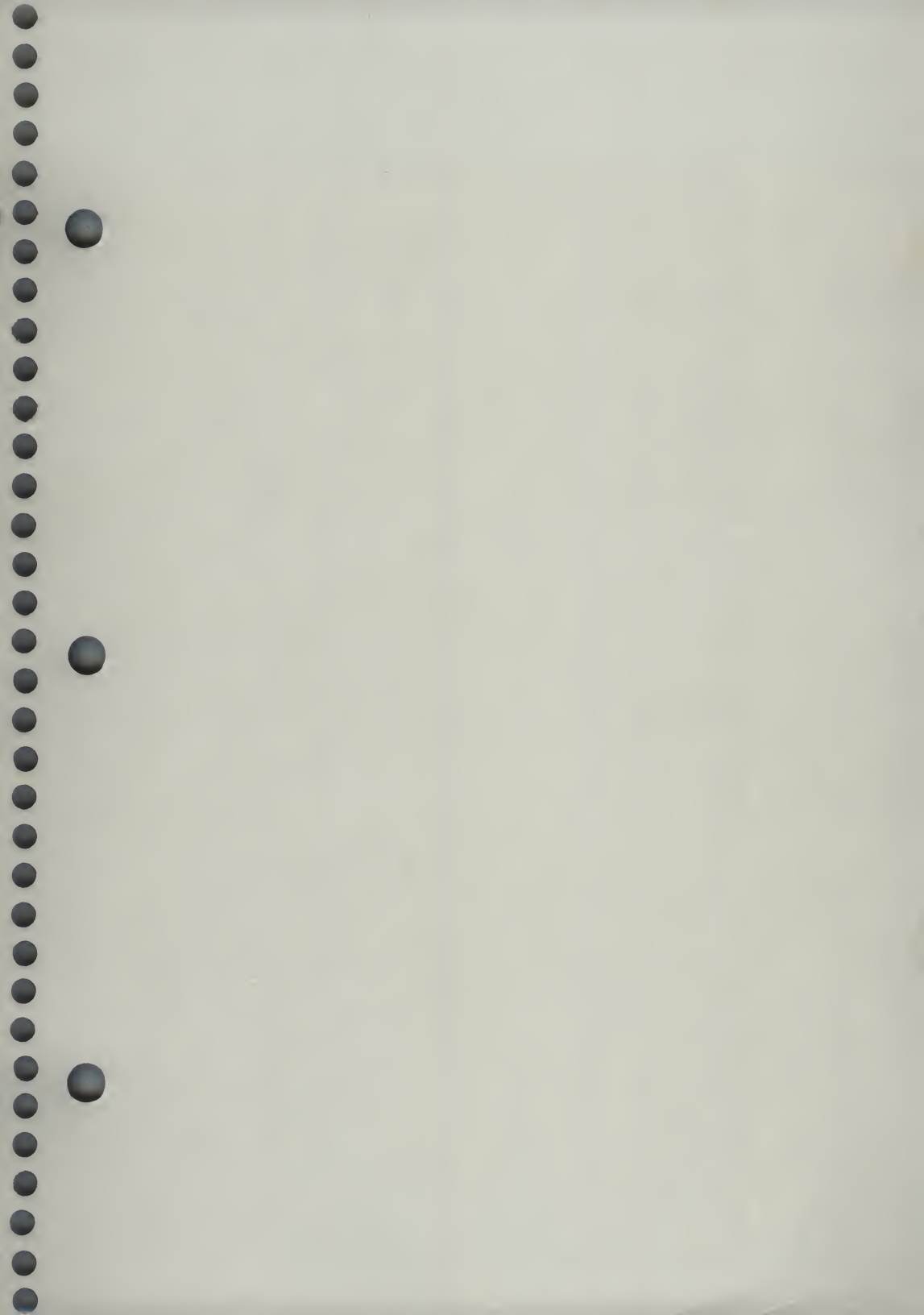


## NOTES

File Control Table:

055-424499

## NOTES



TIS663-051688-S1